HYMENOCLEA PLATYSPINA (ASTERACEAE: AMBROSIEAE), A NEW SPECIES FROM BAJA CALIFORNIA

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Examination of plants sampled from two populations *(FS82* and *FS83)* separated by 8 km along Mexico Hwy. 5 in Baja California revealed a new taxon possessing some affinity with the *Hymenoclea salsola* complex (Peterson and Payne, 1973). All plants observed in the two localities were restricted to dry arroyos at the base of bajadas that extended several kilometers from the Sierra Pinta Mtns. The species shares with *H. salsola* the characteristics of spring flowering and the emergence of the involucral wings in several series from the surface of the pistillate head. The latter character is variable in *H. salsola* but contrasts with the uniform arrangement typical of *H. monogyra* wherein the wings are arranged in a single whorl at the center of the involucre. *Hymenoclea platyspina* can be distinguished from *H. salsola* by the characters listed in Table 1. The most important difference is reflected by the specific epithet, emphasizing the presence of a flattened spine that emerges from the end of the thickened midrib of the pistillate involucral wing.

Hymenoclea platyspina Seaman, sp. nov. Frutex ad 15 dm altus cortice flavoviridi stramineave. Rami graciles ascendentes. Folia sessilia velutina 1–4 cm longa bipinnatifida tripinnatifidave lobis filiformibus epidermide globulis resinosis pellucidis numerosis. Capitula staminata pistillataque intermixta axillaria. Involucrum staminatum late cupuliforme lobulis 5–6 ovatis vel deltoideis 3–4 mm latis tomentulosis epidermide globulis resinosis pellucidis numerosis; flores 6–9 rare paucores; receptaculi paleae corollis breviores lineares margine villosae apicibus spathulatis ad maturitatum nervo medi spiniformi; corollae infundibuliformes glabrae; antherae apice acutae; stylus rudimenti staminibus brevioris parte stigmatica penicillata. Involucrum pistillatum ca 6 mm altum fusiforme rostratum phyllariis 14–18 cartillaginis dorsiventraliter complanatis apice spiniformibus lateraliter alatis alis oblanceolatis ad basin concavis aliquando foveatis; flos solitarius centralis omnino inclusis. Fig. 1.

Type: Baja California, 101.6 km N of San Felipe, 31°48′N, 115°7′W, on Mexico Hwy. 5, growing in a dry arroyo on soil derived from a basalt-like igneous rock, 3 Apr 1972, *F. Seaman and R. Hartman FS-82(3),* (Holotype, TEX; Isotypes distributed to UC, MEXU). Known only from the type locality where it grows along an 8 km stretch of the highway.

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TABLE 1. DIAGNOSTIC CHARACTERS SEPARATING HYMENOCLEA PLATYSPINA FROM THE H. SALSOLA COMPLEX (Peterson and Payne, 1973; 1974).

Character:	*H. salsola*			*H. platyspina*
	var. *pentalepis*	var. *salsola*	var. *patula*	
Involucre				
wing morphology	hyaline without terminal spines	hyaline without terminal spines	hyaline without terminal spines	thickened midrib, terminated by spine
wing length (mm)	3.20±0.82	3.79±0.37	4.51±1.01	3.20±0.41
wing width (mm)	3.59±1.07	4.50±0.94	5.38±0.98	1.4±0.37
length/width	0.89	0.84	0.82	2.3
wing arrangement	whorled near center of involucre body; emergent from involucral body	spirally arranged or in several series; emergent from involucral body	spirally arranged or in several series; appressed to involucral body	spirally arranged or in several series; emergent from involucral body
number of wings	7.00±1.77	9.70±1.82	13.20±1.98	15.01±1.20
Receptacular paleae in the staminate head	without thickened midrib and terminal spine	without thickened midrib and terminal spine	without thickened midrib and terminal spine	with thickened midrib and terminal spine
Leaf morphology	filiform, the lower pinnately few lobed	filiform, the lower pinnately few lobed	filiform, the lower pinnately few lobed	pinnately divided throughout plant, with large filiform segments

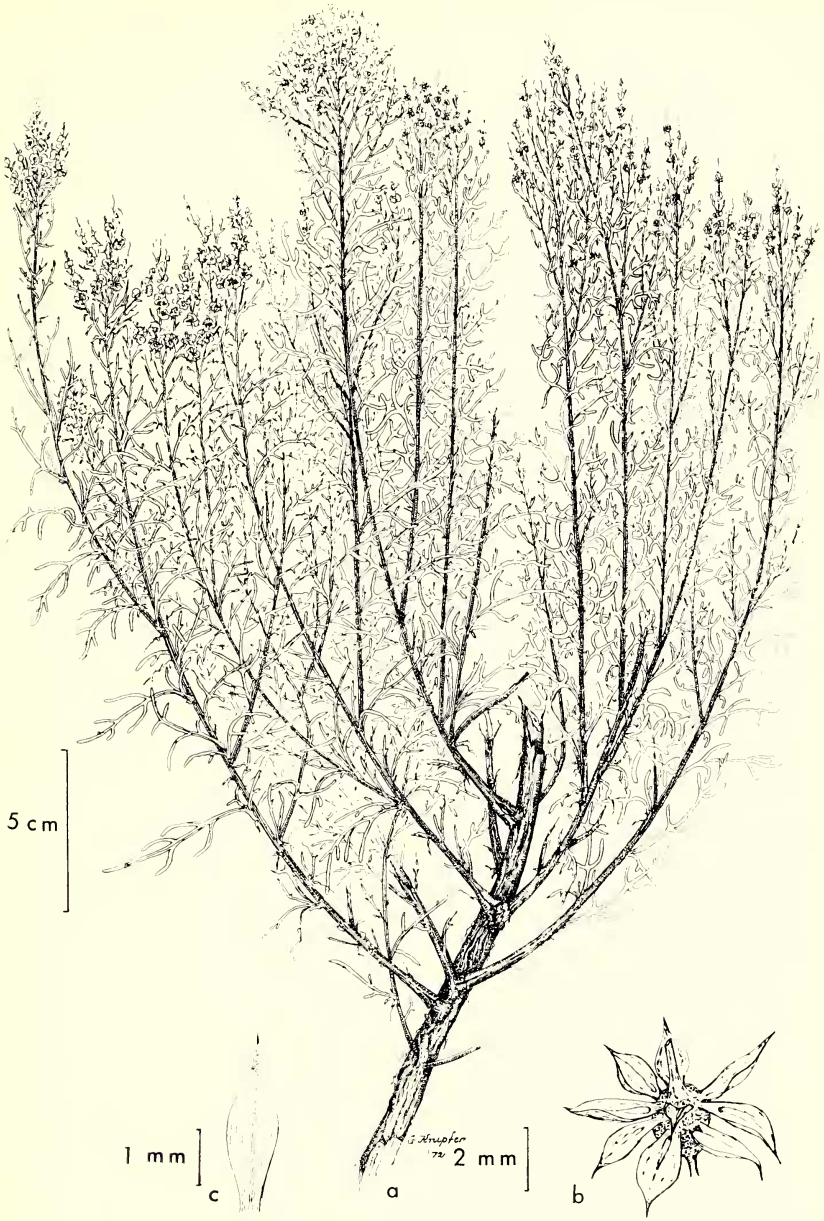

FIG. 1. Habit and morphological details of *Hymenoclea platyspina;* A, vegetative portion with immature pistillate heads; B, a mature pistillate head; C, an involucral wing.

Literature Cited

Peterson, K. M. and W. W. Payne. 1973. The Genus *Hymenoclea* (Compositae: Ambrosieae). Brittonia 25:243–256.

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EFFECTS OF POWER TRANSMISSION LINES ON VEGETATION OF THE MOJAVE DESERT

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The natural vegetation of the Mojave Desert has been subjected to a variety of manmade disturbances including construction activity, agricultural clearing, recreational traffic, military maneuvers and testing, mining, and many more. Disturbance activities have a primary impact at their onset and sometimes a secondary impact if disturbance continues. An assessment of disturbance to vegetation involves estimating both the area disturbed and the species affected, along with evaluating the course and rate of recovery. In cases compounded by continued disturbance, many secondary effects may develop that may cause drastic changes in the distribution of organisms and in organism interactions.

There are a few reports discussing the impact that various disturbances have had on the Mojave Desert vegetation. Beatley (1965, 1966) and Wallace and Romney (1972) discussed the effect of short-term disturbance on the vegetation of nuclear test sites in southern Nevada. Vasek et al. (1975) described the effect of pipeline construction in the Lucerne Valley region of California, and called attention to the extreme ages of some creosote bushes *(Larrea tridentata)*. Wells (1961) described a successional pattern following the cessation of continued disturbance on the streets of a Nevada ghost town, and Davidson and Fox (1974) evaluated the effects of intermittent off-road motorcycle activity. However, to our knowledge, no evaluations are available on the disturbance to vegetation by powerline construction.

The construction of power transmission lines involves clearing access roads, constructing pylons, and stringing cables and wires between pylons. Disturbance ceases after construction is complete, except for continued use of access roads by maintenance patrols. In essence, then, power line construction involves devegetation on access roadways, temporary destruction of vegetation under the power pylons, and temporary